LAPLACE INSIGHTS

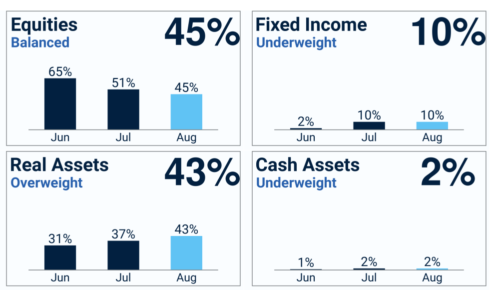
Global Investment Report

August 30, 2021

Key Insights For September

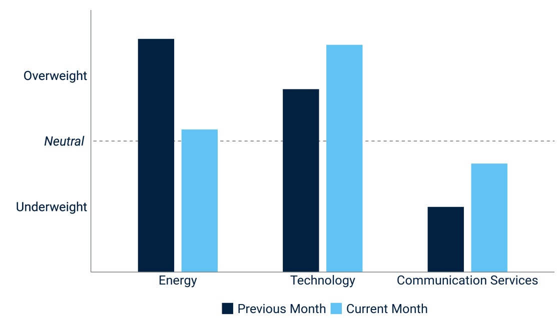
- **Inflation continues to be under control.**
- **Stocks continue to be attractive**, despite the delta variant hitting the unvaccinated population hard.
- **Real estate continues to be a great play going forward.**
- **Large caps growth stocks and US stocks are generally more attractive** than value and international stocks, despite the August correction.
- **Fixed income is attractive primarily as a risk diversifier**.

Tactical Model Summary



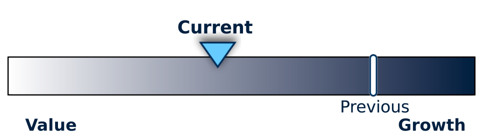
Stay in risk assets. Our tactical model emphasizes real estate and large cap growth stocks with fixed income as a risk diversifier.

Top Sector Changes



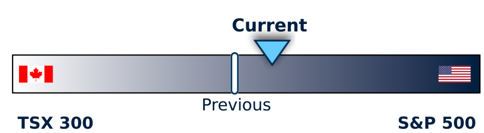
The top sector changes since last month include **Energy (XLE), Technology (XLK) and Communications Services (XLC).**

Value - Growth Factor



Value stocks caught up this month, explaining our indicator's pullback from growth, but our tactical model continue to favor growth longer term.

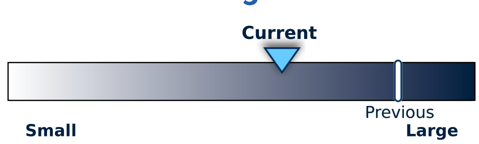
US/CAN Relative Attractiveness



For Canadian Advisors:

Our US / Canada indicator finds US stocks slightly more attractive than Canadian stocks at the moment, on an exchange rate risk-adjusted basis.

Small - Large Factor



Although large caps stocks are preferred, small caps are catching up.

1. Market Insights

Insights from our AI Platform PSIMON™

We regularly run PSIMON, our AI platform, to gain insights into market dynamics in addition to get specific forecasts. We summarize the key findings here.

What is PSIMON telling us this month?

1. Like last month, PSIMON has major positions in the S&P 500 (SPY) and real estate (VNQ).
2. Back in May, PSIMON selected real estate instead of gold as an inflation hedge. This theme continues to prove wise with VNQ demonstrating resilience to the broad market selloff earlier this month. VNQ acted as a **risk diversifier** for our portfolio, in addition to delivering consistent returns.
3. Although commodities have more upside, fueled by economic growth, PSIMON is keeping a modest position given commodities as a group are currently taking a pause and have suffered from high volatility recently.
4. PSIMON still has a preference for large caps over small caps this month, albeit the gap is closing fast.
5. Despite value stocks catching up over the past month, PSIMON still shows a preference for growth stocks going forward.
6. Consistent with the growth theme, PSIMON is overweighting growth sectors such as Technology (XLK).
7. PSIMON is generally underweight to neutral on defensive sectors.

We interpret PSIMON's most relevant analyses and forecasts in the following section.

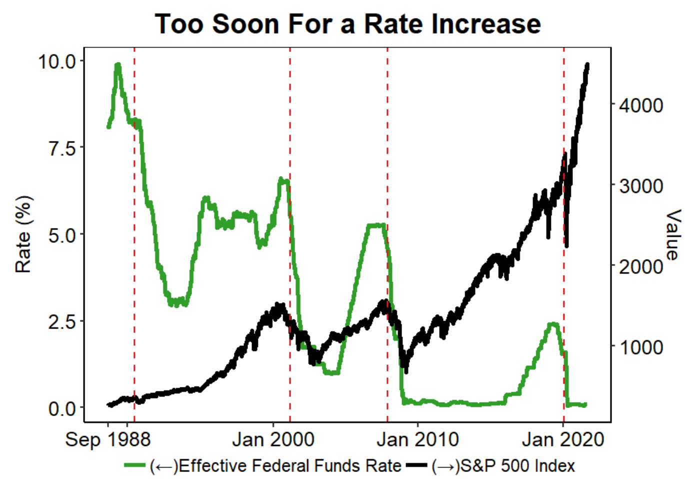
Growth Continues, Despite the Delta Variant

Although the Delta variant is hitting the unvaccinated population hard, economic growth continues to gain momentum and PSIMON is telling us that the S&P 500 will likely continue to outperform other asset classes over the next month.

The market's positive momentum is still going strong, despite the Fed's recent statements that it may move to a more hawkish view sooner than anticipated.

This is not entirely surprising. History shows that rates start to increase at least a couple of years after a recession, while the stock market keeps going up for another 2 to 3 years following the first rate increase.

The chart below tells the story. The red dotted lines represent the onset of the past four recessions.



The key take-away is that even after a few rate increases, monetary policy stays accommodative.

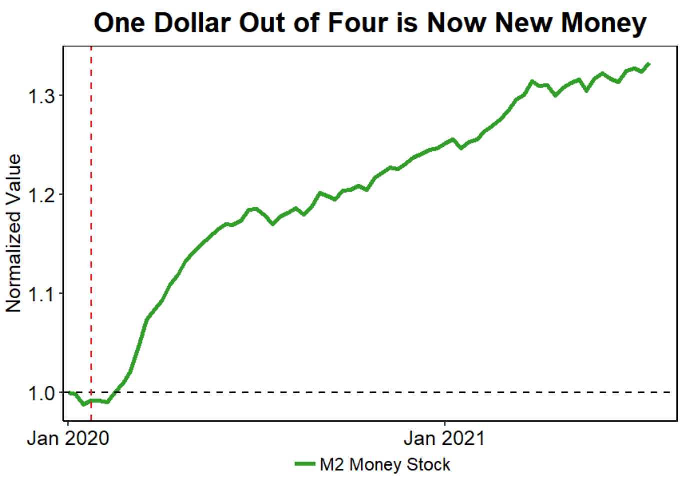
In other words, raising rates once the economy has strong positive momentum doesn't sabotage growth. As long as monetary policy is accommodative, profits will increase and stocks have fuel for further growth.

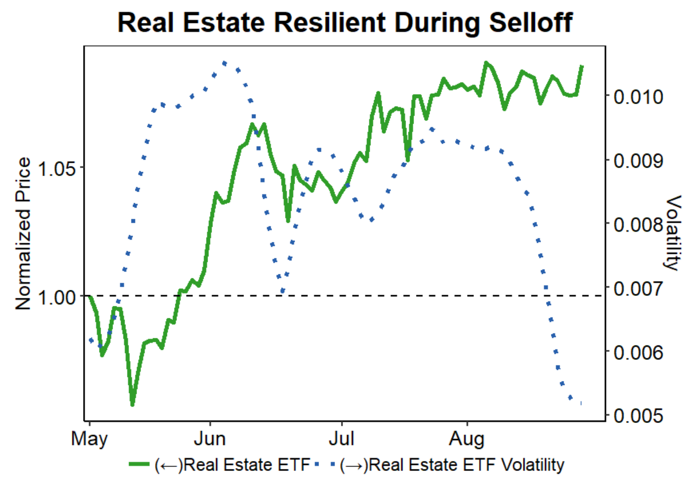
One New Dollar Created for Every Four

Current monetary conditions are extremely dovish as shown by the stock of money (M2) in the chart on the next page.

More than one dollar out of every four in circulation was created over the last 18 months. This money is finding itself in many asset classes including the stock market.

This loose monetary policy provides strong support for the market both now and going forward.





Fiscal Policy Extremely Supportive

US fiscal policy is also very supportive for economic growth and the S&P 500 performance. The $1.2 trillion infrastructure bill and the $3.5 trillion budget is designed to further stimulate the economic recovery over the near term and the longer term.

S&P 500 Earnings Growing Rapidly

Strong reported and forecast earning are supportive for the S&P 500 index. The preliminary results show total earnings have nearly doubled year-on-year in Q2, and are projected to grow 26% in Q3 and 21% in Q4. This level of earnings growth, combined with the monetary and fiscal drivers mentioned above are likely to fuel further growth in the S&P 500 index.

PSIMON Still Favors Real Estate

The positive momentum in real estate as an asset class is supported by the long-term fear of inflation resulting from the unprecedented injection of money into the economy by governments and central banks around the world.

The chart below shows our real-estate ETF (VNQ) and its rolling 21 day volatility. VNQ's resilience to last month's selloff is very telling. VNQ's volatility actually went down over the period (dotted line), and more precisely during the broad market selloff. In other words, VNQ acted as a **diversifier of risk** for our portfolio during the volatile period.

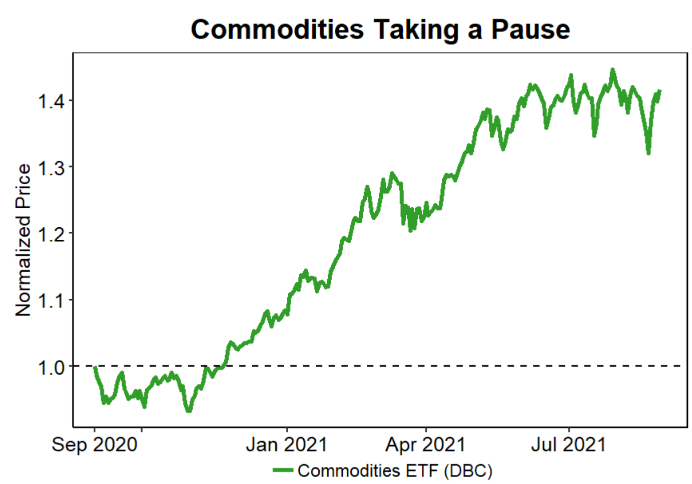
It is worth remembering why PSIMON chose to take a large position in VNQ back in May. In addition to providing growth to the portfolio, real estate is a good inflation hedge while it is also positively correlated with raising rates. It is therefore fair game to expect it to show resilience during a correction induced by an expectation of raising rates, like we recently had.

Commodities Pausing and Volatile

Contrary to the resilience of real estate, commodities took all the brunt of the recent selloff. The chart below shows how DBC has been moving sideways with increasing volatility recently, in step with the market selloff.

Still, PSIMON is bullish on commodities, as they are set to rise further driven by long term inflation. However, commodities recent pause, combined with increased volatility is reason enough for PSIMON to keep a reduced position, at least in the short term.

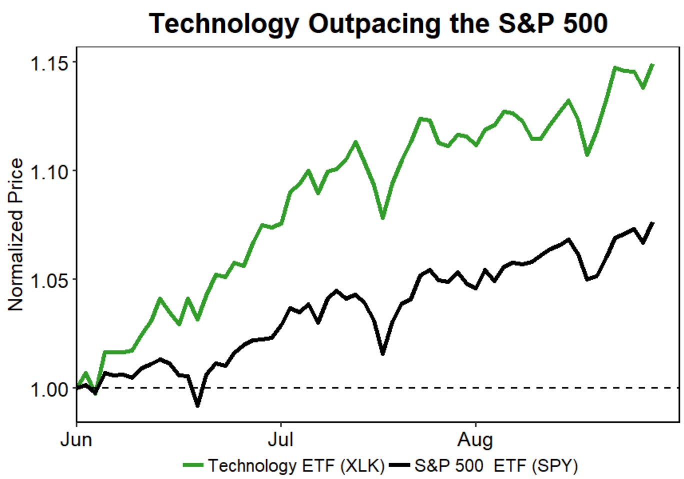
This is primarily a volatility management move by PSIMON.



Technology Continues to Outpace the S&P 500

PSIMON continues to recommend an overweight position in the technology sector (XLK) within our S&P 500 sector model.

The chart below shows the technology ETF (XLK) clearly outpacing the S&P 500 over the past few months.



In addition, PSIMON is raising its recommendation for the communications sector (XLC) to neutral. XLC slightly underperformed the S&P 500 during the past month, in step with PSIMON's previous underweight recommendation.

Since commodities are showing volatility and taking a pause, PSIMON is also recommending a neutral position in the energy sector (XLE).

Fixed-Income for Resilience Against Corrections

In the short term, global supply chain disruptions continue to be a major concern for inflation. However, short term inflation fears continue to be well contained, as argued in last month's report by our analysis of the 10-year breakeven rate.

In this context, holding a basket of fixed income to diversify and help manage portfolio risks makes sense, should a meaningful correction happen.

However, PSIMON is keeping the overall fixed-income allocation quite low since bond yields could rise when the Fed decides to reduce its bond purchases later this year or early next year.

In other words, fixed income is only attractive as a way to hedge portfolio risks, and should not be thought of as a driver of portfolio returns.

2. Sector Insights and Relative Attractiveness

Sector Attractiveness Dashboard

The figure below shows the attractiveness of each sector **relative to the S&P 500 index**.

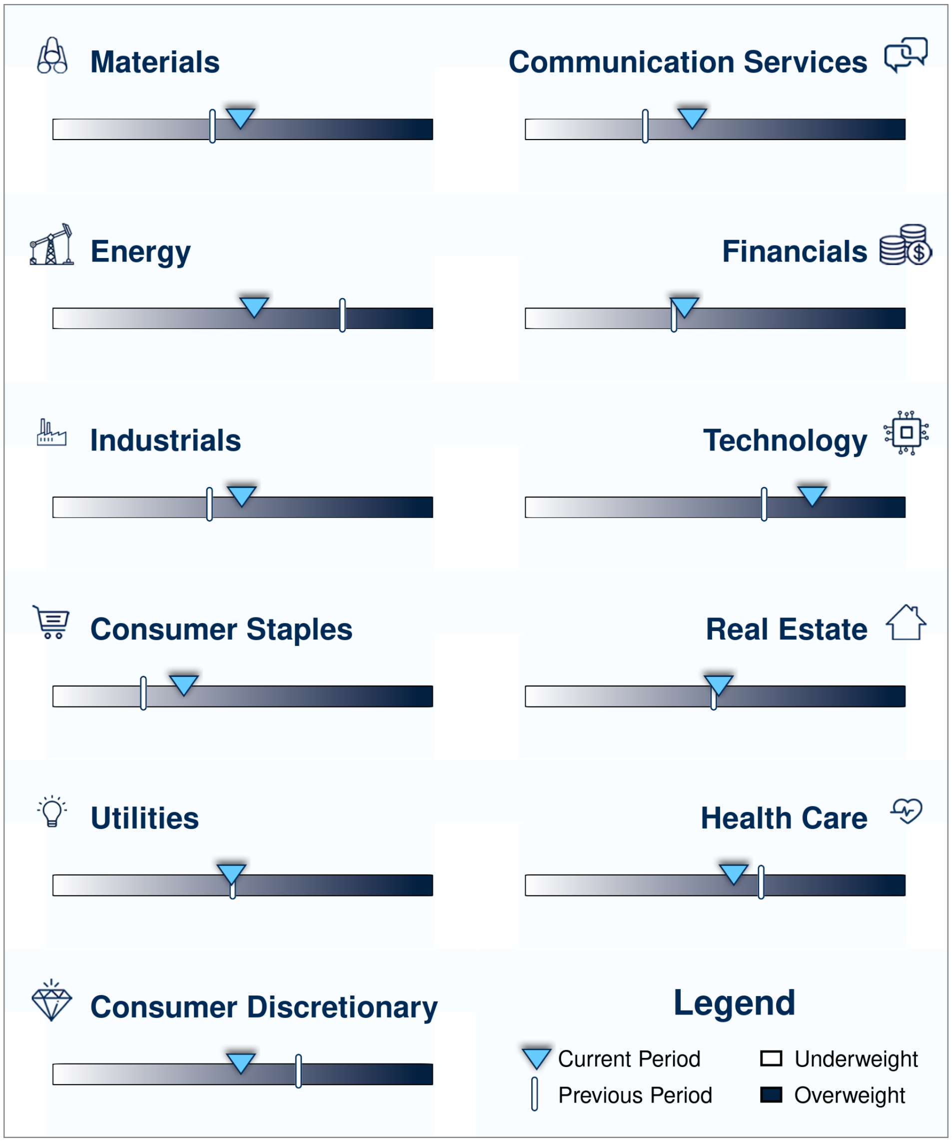


Figure 1

The blue triangle indicates the current attractiveness level, whereas the vertical bar indicates that sector's attractiveness in the previous period (last month).

When the triangle is located on the right, an overweight is recommended relative to the S&P 500. Conversely, an underweight is recommended when it is on the left side.

When the indicator is in the middle of the horizontal bar, an equal weight relative to the S&P 500 is recommended.

For details on the S&P 500 GICS sector weightings, please see **Section 6**.

3. Tactical Model Insights & Allocations

Our tactical model (known as Columbus) can be used to make **tactical adjustments** to a portion of a client portfolio, to complement a relatively static strategic allocation. This concept is illustrated by the pie chart below.

Columbus Model for Tactical Adjustments

Occasionally, the model may allocate fully into cash or equities. During a bear market, it may be fully in cash to protect capital, while it could be fully in equities during a bull market. The model is designed to behave this way so it can easily complement an otherwise stable, low turnover strategic portfolio structure.

Since the model adjusts every month, trading it in a tax-free account may be desirable.

Asset Class Dashboard

The figure below shows the model allocations organized in four quadrants, each representing an asset class.

- The **large number in bold** is the percentage allocation of the portfolio in that asset class.
- The **bar chart** shows the allocation over each of the previous three months.
- The **half moon dial** provides a visual of the allocation percentage of that asset class in the overall portfolio.
- The words **"Balanced", "Underweight" or "Overweight"** represent the asset class allocation compared to the table below.

To show the allocations in context, we provide a simple reference in the table below. Deviations above or below the thresholds would represent an overweight or underweight allocation for that asset class.

Asset Class	Underweight Threshold	Overweight Threshold
Equities	Below 30%	Above 60%
Fixed Income	Below 20%	Above 45%
Real Assets	Below 10%	Above 20%
Cash Assets	Below 5%	Above 15%

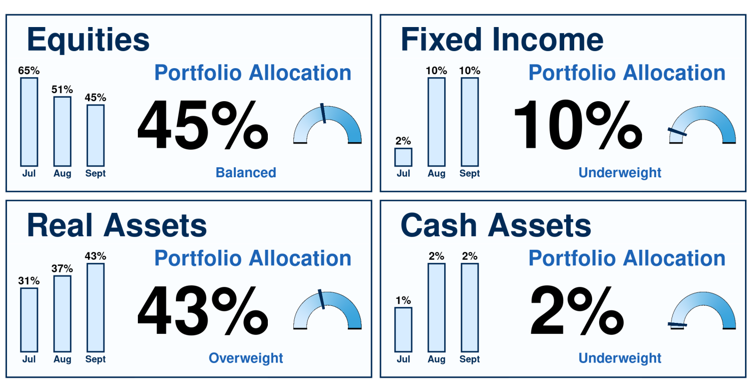


Figure 2

Tactical Model Allocation Table

The table below shows the Columbus tactical model allocations for the previous period, while the current period is shown in **bold characters**. These should be used to rebalance the portfolio.

The Max. Weight column shows the maximum weight limit constraining each ETF. This represents the upper weight limit for that ETF during an ideal market situation, where expected returns are high and volatility is low.

The maximum weight are used to limit the exposure of specific ETFs in the portfolio. The model reaches these limits only occasionally.

To learn more about how to use our Columbus tactical model, please look at Section 5 - "How to Use Our Models".

Asset Class (ETF)	Max. Weight	Weight on 2021-07-29 (%)	Weight on 2021-08-30 (%)	Change (%)
SP500 Index (SPY)	50%	49%	**44%**	-5%
Small/Mid Caps (VXF)	40%	-	**1%**	1%
Int'l Large Caps (EFA)	45%	2%	**-**	-2%
Japanese Stocks (EWJ)	40%	-	**-**	-
Em. Markets Stocks (VWO)	35%	-	**-**	-
Commodities (DBC)	35%	8%	**4%**	-4%
Gold (GLD)	35%	-	**-**	-
Real Estate (VNQ)	40%	29%	**39%**	10%
20+ Yrs Treasuries (TLT)	45%	3%	**4%**	1%
7-10 Yrs Treasuries (IEF)	60%	-	**-**	-
Corporate Bonds (LQD)	60%	5%	**4%**	-1%
Inflation-Protect Bonds (TIP)	60%	2%	**2%**	-
Em. Mkts Sover'n Bonds (PCY)	50%	-	**-**	-
US Dollar Index (UUP)	60%	-	**-**	-
Short Term Treasuries (SHY)	100%	2%	**2%**	-
Total		**100%**	**100%**	

Note: The model portfolio trades on the day after the report is sent to subscribers.

4. Performance Summary

Columbus Tactical Model Performance

Figure 3 below shows the Columbus tactical model performance since April 2007. This is based on the **latest release of our Laplace AI platform and model.**

The blue curve shows the model performance based on the most recent software release. The grey curve is the S&P 500 ETF (SPY), whereas the red curve is the Vanguard Moderate Growth ETF (VSMGX), which provides a 60/40 allocation between stocks and bonds. The orange curve is the equal weights portfolio created by equally weighting all 15 ETFs forming the Columbus investment universe.

The investment value (alpha) created by the Columbus model is shown by the double arrow located on the right side of the chart (Columbus Alpha Creation). This double arrow compares Columbus (blue) to the no-skill portfolio represented by the Equal Weights benchmark (orange). Comparing these two curves over the time frame shows how the model generates returns above and beyond the Equal Weights no-skill portfolio over time.

As we continue to improve our Laplace AI machine learning platform by adding more training data, new economic and financial indicators, and improving our machine learning forecasters with the latest technological breakthroughs, **we expect the performance of the Columbus strategy to keep improving over time.**

The table below provides a performance summary of the model compared to the same three benchmarks shown in the Figure.

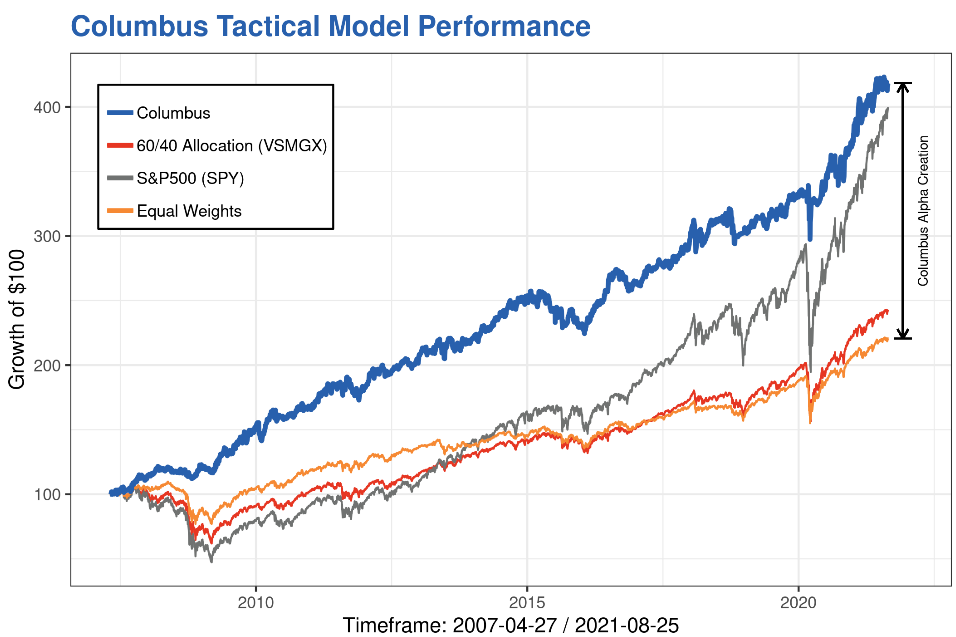


Figure 3

	Columbus	60/40 Allocation	S&P500	Equal Weights
Annualized Return (%)	10.51	6.4	10.16	5.68
YTD Gain / Loss (%)	11.62	8.72	20.86	6.3
YTD Annualized Gain/Loss (%)	18.52	13.8	34.03	9.91
Maximum Drawdown (%)	-12.83	-41.11	-55.2	-29.85
Annualized Standard Dev. (%)	9.73	12.79	20.48	9.61
Positive Rolling Years (%)	91.84	80.99	84.3	83.02
Annualized Sharpe Ratio	1.08	0.5	0.5	0.59
MAR Ratio	0.82	0.16	0.18	0.19

Appendix A: How to Use Our Models & Insights

Our research is 100% automated and generated by our proprietary Laplace AI™ machine learning and artificial intelligence platform. This ensures that you get recommendations and insights based on:

- **Market facts and statistics**, driven by more than 100 000 financial events and 120 years of market history.
- **Emotion-free and opinion-free information**, helping you understand market dynamics and bring clarity during turbulent and uncertain times.
- **An adaptive platform**, capable of discovering and learning new predictive relationships in financial data as the global economy evolves and new paradigms emerge.

Helping You Interpret Key Market Dynamics

Our AI platform produces a lot of useful information every month, all of which is free of opinions and human biases.

You will find many **data-driven commentaries and discussions** throughout the report. These commentaries are meant to help you understand and bring clarity on the most relevant market dynamics at play.

We generally use charts and tables to illustrate key points. **Feel free to use these illustrations with your clients**, especially if you find them helpful to support your client discussions.

Ultimately, our objective is to equip you to **act with clear conviction** when you consider client portfolio trades. we are here to help, and we are always open to suggestions to improve the content of our report. So don't hesitate to contact us with your suggestions.

Preserve Capital and Deliver Returns

This **Global Investment Report** may be used to help you preserve client capital while also providing a source of additional equity market returns over the long run.

These dual objectives are achieved using two complementary strategies and insights, in combination with broader market indicators:

- The **Columbus Tactical Model** helps preserve capital during turbulent or bear markets by providing tactical asset allocation recommendations. During bull markets, the strategy generally captures global equity market uptrends by allocating into global equity ETFs.
- The **Sector Relative Attractiveness Insights** help create additional equity market returns by providing insights into the S&P 500 equity sectors. These insights propose to overweight the more attractive sectors while also underweighting the least attractive sectors to help achieve higher equity market returns than those offered by the S&P 500.
- **Three Market Indicators** provide information on two equity market factors (small vs. large caps, and value vs. growth), in addition to an indicator of the expected relative performance of the Canadian stock market vs. the US market, adjusted for the exchange rate (for Canadian advisors).

Our models help enhance the performance of your client portfolios by reducing overall risks while also improving long term returns through active tactical allocation.

The sections below provide more details on the Columbus Tactical Model and the Sector Relative Attractiveness Insights, in addition with the indicators mentioned above.

5.1 The Columbus Tactical Model

Columbus Delivers Uncorrelated Returns

Our Columbus tactical model provides a source of uncorrelated returns during those times when it is most important to be **decorrelated from the stock market.** The concept of uncorrelated returns is used extensively by investment professionals such as pension funds and large institutions. Rather than solely trying to maximize returns during bull markets, which often comes with amplified losses during bear markets, pension funds and institutions use different sources of returns to build portfolios that are **resilient to global economic uncertainty.** The Columbus model was developed with this idea in mind by providing a simple way for investment advisors to deliver uncorrelated returns in their client portfolios.

The primary objectives of the strategy are to protect capital during bear markets while also capturing stable growth over the long term.

During bear markets, Columbus invests in assets that are generally not correlated with the stock market. This helps to deliver returns during those times when it really matters to own a source of uncorrelated returns.

Conversely, Columbus becomes correlated to global equities **during stable bull markets in stocks**. This allows it to capture stock market upside and ensure your clients do not miss out on those gains.

How Columbus Works

The Columbus model selects up to 8 assets from a universe of 15 low costs, highly liquid ETFs, each representing one of the world's major asset classes. The strategy selects assets and adjusts their allocation weights to optimize for the best risk/return tradeoff, by emphasizing safety and capital preservation over short term gains.

The Columbus model trades monthly on the last trading day of the calendar month.

Columbus is Not a Market Timer

Although it may appear that Columbus can be used as a stock market timer, it is **NOT designed to be a market timer.** Unlike a market timer, Columbus will stay out of the stock market during times when it perceives a high degree of risks in equities, even though equities may turn out to be rallying strongly during those high risk periods.

Columbus is a Tactical Sleeve

In addition, Columbus can recommend a 100% stock allocation during high quality and stable bull markets in stocks, whereas it can also recommend a 100% allocation in government treasuries during bear markets. To ensure some level of diversification, certain maximum allocations have been imposed on each ETFs as discussed in Section 3 of this report. These maximums are dynamically reduced based on the expected volatility of each ETFs. This provides a way to manage concentration risks into a single ETF, but does not preclude the possibility of allocating 100% of the portfolio into equity ETFs.

For these reasons, Columbus should never be used as a portfolio core but **rather as a tactical sleeve to complement a client's core portfolio.** Columbus adjusts its allocations at the end of each month based on the prevailing market conditions and related returns and risks expected in all 15 ETFs it tracks in its investment universe. The list of ETFs used is shown in a table in Section 6.

5.2 Sector Relative Attractiveness Insights

In addition to the Columbus tactical model, this report also includes insights on the relative attractiveness of the S&P 500 equity sectors. This helps create additional equity market returns by proposing to overweight the more attractive S&P 500 sectors while simultaneously under-weighting the least attractive sectors. This overweight / underweight approach is updated monthly and is meant to provide a sense of **the sectors that are most likely to perform better on a relative basis** over the next several weeks and months.

Each of these 11 sector has an associated ETF, so it is possible to trade sectors directly. Section 6 includes the list of the ETFs along with their weight in the S&P 500 index.

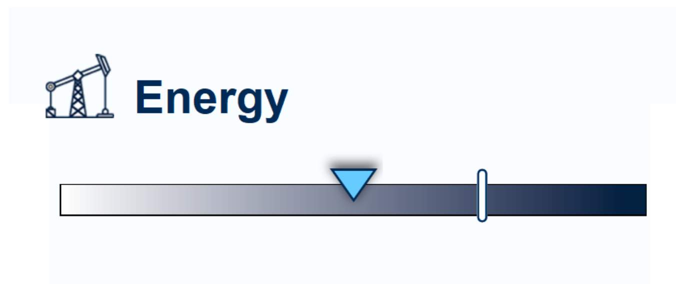
How the Sector Insights Work

The figure below provides an example of the sector relative attractiveness insights indicators.

For each of the 11 GICS sectors, an indicator shows the attractiveness of that sector relative to all other sectors in the S&P 500. The blue upside-down triangle shows the attractiveness level for the current period, whereas the vertical bar shows the attractiveness level during the previous period. This helps visualize the change that occured since last month.

When the triangle is in the middle of the horizontal bar, it indicates to maintain the same GICS weighting as in the S&P 500. When the triangle moves to the left, an underweight is recommended. Conversely, when it moves to the right, an overweight position is recommended.

This same indicator format is used for all 11 sectors.



Sector Indicator Example

Using the Sector Insights in Practice

There are many ways in which these insights can be used in an equity portfolio including:

- One simple approach to achieve a sector overweight is by purchasing the equivalent SPDR sector ETF in an equity portfolio.
- For more complex portfolios that can include individual stocks, a sector overweight insight can be a sign to increase the weighting of stocks that belong to that sector.
- Conversely, also for individual stock portfolios, a sector underweight insight may be an indication to reduce some stock positions that belong to that sector.
- A combination of the above may also be useful in certain types of client portfolios.

The sector insights can be used in a variety of ways and are meant **to provide an emotion-free, fact-based, machine-driven relative outlook on the S&P 500 sectors.** It is not a complete investment strategy and should never be used as such. Rather, it should be used as a way to complement an existing equity investment strategy.

5.3 Market Indicators

We provide three market indicators on the first page of this report. These indicators provide long term signals, as opposed to our Sector Insights and the Columbus tactical model, both of which are tactical and designed to react to short term market expectations.

The market indicators are expected to change relatively slowly from month to month, unless something drastic is happening in the markets. Their primary purpose is to provide guidance over a 3 to 6 month horizon, enabling advisors to manage longer term positions more efficiently.

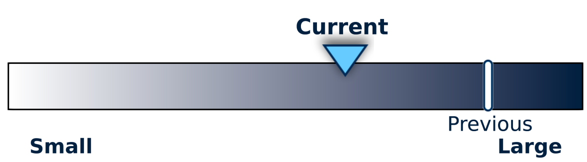
Given the longer term nature of these indicators, they are likely to be occasionally at odds with the signals provided by Columbus and the Sector Insights. This happens when Columbus or the Sector Insights expect a contrary short term move (such as a near term correction), while the market indicators expect the long term trends to remain intact.

Small - Large Factor Indicator

This indicator provides a long term signal on the expected performance of small cap vs. large cap stocks. The Morningstar small cap and large cap indexes are used for its analysis.

The blue upside down triangle represents the current relative attractiveness, emphasizing small caps when located on the left of the bar, and large caps when on the right of the bar. A middle position indicates neither small caps nor large caps are preferred.

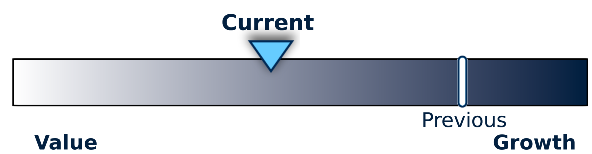
The vertical bar represents the previous period indicator position (i.e. last month).



Value - Growth Factor Indicator

This indicator provides a long term signal on the expected performance of value vs. growth stocks. The Morningstar value index and growth indexes are used for its analysis.

The upside down triangle and vertical bars have a similar meaning as the small - large cap indicator.



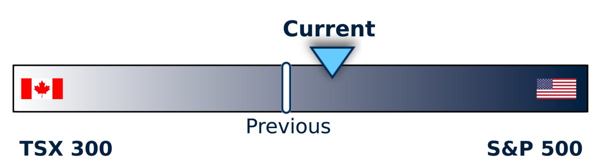
US/CAN Relative Attractiveness

For Canadian advisors:

This indicator provides a long term signal on the expected performance of the Canadian stock market vs. the US stock market, adjusted for the exchange rate, and as experienced by a Canadian investor.

We developed this indicator for our Canadian advisor audience. Canadian clients often wish to invest in the US market, but this comes with the added volatility imposed by the exchange rate. Although it is possible to hedge for the exchange rate, it always comes at a cost.

This indicator is intended to help Canadian advisors manage the un-hedged exposure to the US market from the perspective of a Canadian investor.



Appendix B: ETFs Used by Our Models

Our global tactical allocation model (known as Columbus) uses a universe of 15 ETFs to represent the major asset classes available in global finance. These ETFs all trade on the US markets and are highly liquid.

The US stock asset class is covered by two ETFs: the S&P500 ETF (SPY), representing large cap stocks, and the extended market ETF (VXF), representing small and mid cap stocks. The international stock market is also split among three ETFs: EFA to provide exposure to international developed market stocks, VWO to provide exposure to emerging market stocks, and EWJ to cover the Japanese market which tends to have a relatively low correlation to other stock markets.

The table below provides a short description of all ETFs comprising the Columbus investment universe along with their total assets and annual expense ratios.

Symbol	Assets	Exp. Ratio	ETF Name and Description
SPY	$ 242B	0.09%	SPDR S&P500 Index
EFA	$ 79B	0.33%	iShares MSCI EAFE Index
VWO	$ 82B	0.14%	Vanguard FTSE Emerging Market Equities
VXF	$ 58B	0.08%	Vanguard Extended Market (US small & mid caps, ex-S&P500)
EWJ	$ 17B	0.48%	iShares MSCI Japan Equities
VNQ	$ 65B	0.12%	Vanguard REIT Index
GLD	$ 32B	0.40%	SPDR Gold Trust (Gold Bullion)
DBC	$ 1.9B	0.89%	PowerShares DB Commodity Index Tracking Fund
IEF	$ 7.3B	0.15%	iShares 7-10 Year Treasury Bonds
TLT	$ 7.4B	0.15%	iShares 20+ Year Treasury Bonds
TIP	$ 23B	0.20%	iShares TIPS Bonds
LQD	$ 38B	0.15%	iShares iBoxx $ Investment Grade Corporate Bond Fund
PCY	$ 4.7B	0.50%	PowerShares Emerging Markets Sovereign Debt Portfolio
UUP	$ 515M	0.75%	PowerShares DB US Dollar Bullish Index Fund
SHY	$ 11B	0.15%	iShares 1-3 Year Treasury Bonds (Primary Cash Asset)
AVERAGE	**$44.6B**	**0.31%**	

The S&P 500 is composed of 11 sectors defined by the Global Industry Classification Standard (GICS). The Select Sector SPDR ETFs are used to track these sectors, and are used by our Sector Insights AI engine. As of December 30, 2020, the ETFs, and their related GICS sector weightings were as shown in the table below.

Please consult the ETF sponsor's web site for more information.

Symbol	Assets	Exp. Ratio	GICS Sector Weight	Description
XLB	$ 4.33B	0.13%	2.6 %	Materials Sector SPDR ETF
XLC	$ 7.74B	0.13%	10.8 %	Communication Services Sector SPDR ETF
XLE	$ 9.97B	0.13%	2.3 %	Energy Sector SPDR ETF
XLF	$ 17.57B	0.13%	10.4 %	Financials Sector SPDR ETF
XLI	$ 7.68B	0.13%	8.4 %	Industrials Sector SPDR ETF
XLK	$ 27.23B	0.13%	27.6 %	Technology Sector SPDR ETF
XLP	$ 14.51B	0.13%	6.5 %	Consumer Staples Sector SPDR ETF
XLRE	$ 4.68B	0.13%	2.4 %	Real Estate Sector SPDR ETF
XLU	$ 11.8B	0.13%	2.7 %	Utilities Sector SPDR ETF
XLV	$ 24.65B	0.13%	13.4 %	Health Care Sector SPDR ETF
XLY	$ 11.85B	0.13%	12.7 %	Consumer Discretionary Sector SPDR ETF
AVERAGE	**$12.91B**	**0.13%**		

Appendix C: PSIMON™ AI Platform

PSIMON™ is Laplace Insights' proprietary machine learning platform developed over the past 6 years in partnership with the AI research team and the Business School at the Université de Sherbrooke. PSIMON generates all insights, forecasts and asset allocation recommendations found in this report.

PSIMON uses some of the most advanced time series forecasting technologies available in artificial intelligence research today. **Conceived as a scalable architecture,** it can easily integrate new machine learning algorithms and statistical forecasting methods as these become available in the future.

In addition, it can scale to many hundreds of thousands data time series to improve its ability to learn the important financial lessons of history. This means that **the platform will continue to improve over time,** essentially becoming more intelligent and more robust to future challenging market situations as we keep adding more data and introducing better machine learning and forecasting algorithms to its architecture.

Learning History's Financial Lessons

The World has experienced some very challenging periods during the past century, including two World Wars, a Depression and many recessions, as well as many political and economic crises. A fundamental tenet of finance is to learn from these great lessons of financial market history, and then see how such important learnings can help navigate today's ever more challenging markets.

PSIMON is trained using data from the late 1800's until today, and includes lessons from the panics of 1901 and 1907, the two World Wars, the crash of 1929, the Great Depression, the Cold War, the OPEC crisis in the 1970s, the 1987 market crash, the dotcom crash in 2000, the Great Financial crisis of 2008 and, more recently, the Coronavirus crash. In addition to these major events, PSIMON is also trained on tens of thousands of less dramatic financial events over the past century to bring more granularity to its decision-making process.

History often matters a lot, as Mark Twain is reputed to have said in this quote:

> **"History doesn't repeat itself but it often rhymes."**

By learning the great lessons of financial markets history, PSIMON is well equipped to navigate today's challenging market environment with confidence.

A Platform that Keeps Learning the Market

Financial markets evolve constantly. While many of the market's behavior bear resemblance with the past, some of the market's behavior is also novel. This means that PSIMON must have the ability to keep learning from new financial market and economic data while also taking advantage of the rapidly evolving world of artificial intelligence research.

PSIMON continually learns from new financial market data as the market evolves every day, enabling it to quickly adapt to evolving market situations and paradigm changes. In addition, **our research team is constantly developing and evaluating new market indicators** to discover predictive relationships between assets and these indicators. When shown to have a useful predictive relationship, these indicators are added to the platform to provide additional sources of information and help improve the quality of forecasts.

Furthermore, our research team is at the forefront of artificial intelligence research, so we are continually perfecting our algorithms and forecasting engines to capitalize on the best that technology can offer. We regularly publish scientific articles with the University of Sherbrooke AI team and we are recognized as a trend setter in financial AI research.

Improvements to our Software Platform

Our research team continuously works hard to improve the depth and breadth of the analyses made by PSIMON in order to improve its forecasting accuracy. As a research organization and leading experts in financial machine learning, improving our platform is the most fundamental way in which we continue to enhance the value we provide to our customers.

On a regular basis, we release new and improved versions of our platform on which we run the Columbus tactical mode, our Sector Insights and our Market Indicators. This means that **this report will keep improving over time and the performance of our models and strategies will also progressively get better** with each updated version of the platform.

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